

CARTOGRAFÍA OPERATIVA

Usos del Mapa en el Proyecto Arquitectónico, 1982-2012

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Objeto de estudio

La tesis doctoral “Cartografía operativa: usos del mapa en el proyecto arquitectónico, 1982-2012” pretende explorar los usos críticos de la cartografía en el ámbito del proyecto arquitectónico, y propone el concepto de *cartografía operativa* como espina dorsal para ordenar el trabajo.

Este concepto parte de entender la cartografía como una herramienta proyectiva. Los mapas no informan sino que proponen: más que meras representaciones de la realidad, son sistemas de proposiciones, entendiéndose como proposición un argumento que afirma o niega la existencia de algo. La cartografía, por tanto, es una disciplina propositiva y no simplemente descriptiva.

El carácter potencialmente operativo de la cartografía en el marco del proyecto arquitectónico es claro. A partir de las construcciones concretas de la realidad efectuadas por el mapa, se abren no sólo nuevas concepciones de la realidad cartografiada sino también nuevas posibilidades para *transformarla*. Es en este sentido que podemos hablar de operatividad cartográfica: la práctica cartográfica y el mapa como documento se postulan como herramientas con un enorme poder para afectar a los procesos de proyecto a través de los cuales se transforma el entorno de los hombres. La tesis estudia las diferentes maneras a través de las cuales se establecen relaciones operativas entre cartografía y proyecto arquitectónico, y delinea caminos para explorar en profundidad esta relación.

A pesar del interés sobre la cartografía que desde los 1950s es manifiesto en el arte y la arquitectura, los usos críticos e intencionados del mapa en el proyecto arquitectónico están sorprendentemente infrautilizados.

A partir de esta observación, una primera hipótesis de trabajo asume que desde la disciplina propia del proyecto arquitectónico hay mucho campo abierto para explorar las potenciales relaciones operativas entre mapa y proyecto. Una segunda hipótesis es que la lógica y la práctica cartográfica permiten una revisión e incluso una *ampliación* de las lógicas y las prácticas del proyecto arquitectónico, que llevan paulatinamente a un replanteo de los objetivos, los procesos y los formatos del proyecto.

Más allá de las posibilidades instrumentales que la cartografía pueda tener respecto al proyecto arquitectónico—en el sentido de definir y enmarcar el entorno en el que el proyecto se desarrolla, o en el sentido de informar tomas de decisión proyectuales específicas—vemos el *uso crítico* de la cartografía como señal de unas maneras de proyectar que nos parecen especialmente interesantes y relevantes.

Estos modos de proyectar se caracterizan entre otras cosas por operar desde una insumisión a la convención, proponiendo un *reconocimiento proyectivo* de las condiciones del entorno donde se trabaja. Cuando hablamos de reconocimiento proyectivo nos referimos a una actitud que trabaja simultáneamente desde el pragmatismo y la crítica, asumiendo la necesidad de intervenir efectivamente en la transformación del entorno a partir de una comprensión de lo existente, sin por ello estar sometido a la tiranía de lo que (ya) es.

A través del concepto y las prácticas de cartografía operativa tal y como las acotamos en esta tesis, se pueden construir puentes de diálogo entre lo existente y lo que aún no existe (el proyecto). De este modo se fomenta una arquitectura inquieta e innovadora basada en la *ampliación* tan efectiva como simbólica del entorno.

La tesis pretende tratar las siguientes cuestiones principales:

- » Enmarcar la cartografía como práctica conectable con el proyecto arquitectónico.
- » Presentar el carácter problemático del mapa y su potencialidad crítica.
- » Analizar la operatividad cartográfica en la arquitectura a la luz de usos intensos del mapa en otras disciplinas.

- » Construir una constelación de conceptos que sirvan para articular cuestiones de operatividad cartográfica.
- » Recopilar y estudiar trabajos que pongan de manifiesto usos operativos de la cartografía en la arquitectura, entendiendo arquitectura en su acepción más amplia que incluye urbanismo, paisaje e intervención urbana.
- » Proponer una taxonomía de los diferentes modos de operatividad cartográfica que se dan en el proyecto arquitectónico, y postular vías de exploración futuras.

Finalmente, hay que dejar claro que el objetivo principal de esta tesis es aportar una *contribución metodológica*, tanto conceptual como instrumental, a los proyectos arquitectónicos. A pesar que investigamos la historia—tanto de la cartografía como del proyecto arquitectónico contemporáneo—, no planteamos una angulación historicista sino básicamente pragmatista, que busca no sólo explicar el presente sino sobre todo generar una caja de herramientas para el futuro inmediato que permita *ampliar los objetivos, las metodologías y los formatos del proyecto arquitectónico*.

Metodología

La metodología ha sido la herramienta principal a través de la cual hemos ido construyendo una visión de conjunto que ha permitido explorar el tema de tesis de manera angulada, dirigida y acotada.

La metodología empleada, sin embargo, no fue única, sino que utilizamos cuatro aproximaciones metodológicas diferenciadas que acabaron constituyendo las cuatro partes principales en las que se estructura la tesis. Estas aproximaciones se presentan aquí por separado en aras a la claridad expositiva, aunque se fueron realizando de manera simultánea, y sólo en la redacción final acabaron coincidiendo con las cuatro partes principales de la tesis.

En primer lugar profundizamos en el núcleo conceptual de la tesis y estructuramos su concepto rector en relación a conceptos y prácticas afines. Este trabajo de clarificación conceptual, con una importante carga de investigación bibliográfica, terminó configurando la primera parte de la tesis, “Cartografía operativa”, de carácter especulativo.

En segundo lugar estudiamos en profundidad las raíces de la cartografía como disciplina y como práctica crítico-proyectiva, más allá de los modelos representativos habituales. Para cumplir esta tarea, realizamos una extensa investigación bibliográfica para ir construyendo el edificio de la literatura académica especializada, siguiendo las pautas metodológicas ya clásicas de Umberto Eco. Este proceso permitió ir llenando las lagunas de nuestro conocimiento inicial, que se demostró a lo largo de los años de investigación y redacción, pobre y sobre todo excesivamente parcial. Esta metodología permitió adquirir el rigor académico necesario en el discurso de la tesis y terminó conformando especialmente la segunda parte, “Un mapa del mapa”, de carácter expositivo.

En tercer lugar recopilamos y documentamos una gran cantidad de mapas de todas las épocas y de todas las temáticas—excepto la explícitamente arquitectónica, ya tratada en el punto anterior. Esta investigación fue, inevitablemente, menos sistemática que la anterior, debido a la gran cantidad de mapas disponibles. Los criterios de búsqueda y selección priorizaron aquellos mapas que muestran aspectos especialmente interesantes en el sentido de abrir las expectativas de lo que puede “representar” un mapa. A nivel instrumental, se configuró una aplicación informática organizativa donde se fueron vertiendo todas las referencias potencialmente interesantes, etiquetándolas según grupos o tendencias que se fueron evidenciando a medida que la investigación avanzaba. A partir de racionalizar y organizar los diferentes *tags* en grupos relacionados fueron apareciendo los siete polos conceptuales que terminaron conformando la tercera parte de la tesis, “Atlas eidético: hacia un imaginario cartográfico”, de carácter evocativo.

En cuarto lugar realizamos un vaciado sistemático de proyectos arquitectónicos que movilizan la operativi-

dad del mapa en algún sentido. Poco después de iniciar esta tarea nos dimos cuenta de la necesidad de acotar cronológicamente el período de investigación, lo que pudimos hacer sólo a partir del conocimiento adquirido—es decir, el ámbito temporal 1982-2012 no responde a un criterio apriorístico sino de una observación de raíz inductiva hecha a base de estudiar muchos casos particulares. Una vez definido con claridad el período de investigación, continuamos con la tarea de vaciado de manera más detallada, lo que nos permitió encontrar una cantidad significativa de casos por nosotros desconocidos hasta entonces. El número de casos estudiados y documentados supera los 500, de los cuales se terminaron escogiendo sólo los 25 que se desarrollan en los últimos dos capítulos de la cuarta parte de la tesis. Esta metodología inductiva se aplicó igualmente a la conceptualización de los ámbitos y de los modos de operatividad cartográfica en el proyecto arquitectónico, y ha acabado conformando la cuarta parte de la tesis, “Operatividad cartográfica en el proyecto arquitectónico”, de carácter demostrativo.

Por último, a partir de estas metodologías y de las partes del trabajo que se iban gestando, la labor de redacción buscó la máxima cohesión del trabajo de tesis, aunque manteniendo los diferentes tonos que caracterizan cada parte: *especulativo* en la primera, *expositivo* en la segunda, *evocativo* en la tercera y *demostrativo* en la cuarta y última parte. Los cuatro tonos, en cualquier caso, conservan siempre la angulación *propositiva*, *pragmática* y *operativa* que ha guiado el conjunto de esta tesis.

Introducción a los capítulos de la tesis

La tesis doctoral consta de la Introducción, cuatro partes que forman el cuerpo de la tesis, las Conclusiones, la Bibliografía citada y las Referencias a las imágenes utilizadas. Las cuatro partes que estructuran el cuerpo de la tesis responden a cuatro aproximaciones claramente diferenciadas al objeto de investigación.

La primera parte, “CARTOGRAFÍA OPERATIVA”, acota el concepto principal de la tesis y lo desarrolla ampliamente, con el fin de centrar claramente y desde el inicio la noción de ‘cartografía operativa’—que es el foco de la investigación y el tema que se irá desgranando a lo largo de toda la tesis. Se trata de una parte básicamente teórica y especulativa, con un fuerte componente de posicionamiento personal por parte del autor. Consta de cuatro capítulos. “**Acotación conceptual**” define el concepto de cartografía operativa y lo presenta como la raíz de la tesis. Expone la originalidad del concepto al mismo tiempo que desarrolla un estado del arte que recoge los autores que han trabajado previamente en la relación operativa entre mapa y proyecto arquitectónico. “**Mapas operativos y prácticas diagramáticas**” analiza el mapa desde la óptica de la operatividad, resaltando las características propias que lo distinguen del diagrama y otros sistemas gráficos de comunicación / conocimiento. “**Positividad, expresividad y operatividad**” explora los tres niveles diferenciados desde los cuales trabaja el mapa, o lo que es lo mismo, los tres ámbitos de saber que articula. Finalmente, “**El mapa como sistema de mediación**” desarrolla la idea del mapa como uno de los sistemas de mediación entre proyectista y proyecto más relevantes.

La segunda parte, “UN MAPA DEL MAPA”, cartografía el terreno del mapa desarrollando la cartografía como un saber y una praxis situada históricamente y sometida a continuas redefiniciones—señal del carácter problemático del mapa que no se deja reducir a una definición única y simple. Se trata de una parte fundamentalmente teórica, basada en un extenso trabajo bibliográfico en las áreas de las ciencias sociales, la filosofía y el arte. Es la parte de carácter más expositivo de la tesis. Consta de siete capítulos. “**La especificidad del mapa**” sitúa el mapa históricamente y estudia varias definiciones de mapa a lo largo de la historia, haciendo especial hincapié en las redefiniciones contemporáneas del mapa. “**Una definición de trabajo del mapa**” propone una definición funcional del mapa y la amplia centrándose en aspectos estructurales (‘de qué se compone un mapa?’), procesuales (‘cómo se construye un mapa?’), y performativos (‘qué hace un mapa?’). “**La cuestión de la realidad**” aborda la cuestión de la realidad que el mapa supuestamente reproduce desde una perspectiva filosófica, y fundamenta el posicionamiento constructivista del autor. Los tres capítulos siguientes estudian los significativos cambios de modelo en la cartografía reciente, ordenados

cronológicamente: **“Cartografía positivista”** presenta el modelo positivista de la cartografía y analiza los principales polos conceptuales que históricamente han ido orientándolo; **“Cartografía crítica”** expone la respuesta crítica al modelo positivista que inició una revisión profunda de la cartografía y de las prácticas críticas que se derivan; mientras que **“Cartografía post-representacional”** desarrolla las últimas contribuciones teóricas que entienden la cartografía más allá del paradigma representacional y la abren los horizontes de la performatividad y la agencia. Finalmente, **“Potencialidad crítica del mapa”** presenta la capacidad del mapa para convertirse en una práctica crítica—que es una de las hipótesis de partida del trabajo de tesis.

La tercera parte, **“ATLAS EIDÉTICO: HACIA UN IMAGINARIO CARTOGRÁFICO”**, plantea una constelación de conceptos derivados de una aproximación crítica a la cartografía con la intención de ampliar las maneras de entender y sobre todo los modos de operar con y a través de mapas. Se trata de una parte altamente propositiva y con una fuerte componente gráfica, que desarrolla siete polos conceptuales a través de cincuenta mapas provenientes de disciplinas diferentes de la arquitectura. Consta de siete capítulos, cada uno de los cuales desarrolla uno de los siete polos conceptuales que articulan una visión y un uso crítico de la cartografía. **“Apropiación”** expone la capacidad del mapa para construir la realidad a través del gesto de reclamarla. **“Medida”** trata sobre los límites de conocer la realidad midiendo. **“Narrativa”** pone de manifiesto la cualidad del mapa como texto. **“Geograma”** trata sobre la articulación cartográfica de la relación entre tierra e inscripción. **“Dynamis”** trata sobre la incorporación del vector temporal en el mapa. **“Laguna”** trata sobre las activaciones cartográficas del espacio vacío. Finalmente, **“Fuga”** se refiere a la calidad proliferante del mapa que le permite ir más allá de los modos de representación dominantes

La cuarta parte, **“OPERATIVIDAD CARTOGRÁFICA EN EL PROYECTO ARQUITECTÓNICO”**, desarrolla en detalle la relación entre mapa y proyecto, y propone una taxonomía de los usos operativos del mapa en el proyecto arquitectónico que han sido ensayados durante los últimos treinta años. Se trata de una parte fundamentalmente propositiva, basada sobre todo en casos de estudio práctico que sirven para explorar la riqueza de las relaciones operativas entre mapa y proyecto así como para comprobar la solidez de la taxonomía propuesta. Consta de cuatro capítulos. **“Acotación cronológica del ámbito de investigación”** defiende la delimitación del periodo 1982-2012 como ámbito principal de investigación sobre la operatividad cartográfica al proyecto arquitectónico. **“Pioneros en la integración del mapa al proyecto arquitectónico”** expone tres arquitectos con carreras anteriores a 1982 que prepararon el camino para la explosión de los usos operativos de los mapas en la arquitectura contemporánea. **“Ámbitos de operatividad cartográfica en el proyecto arquitectónico”** desarrolla, a partir de un único caso de estudio, los tres niveles en los que la operatividad del mapa es aplicable al proyecto de arquitectura: la conceptualización, la resolución y la comunicación. Finalmente, el último capítulo, y el más extenso, **“Modos de operatividad cartográfica en el proyecto arquitectónico”**, propone una taxonomía de los distintos modos a través de los cuales mapa y proyecto entran en una relación operativa: visiones, construcciones, protocolos y instrumentos. Estos cuatro modos básicos son explorados e ilustrados a través de veinticuatro proyectos de arquitectura, urbanismo y paisaje, que aportan un alto grado de concreción al marco conceptual previamente desarrollado.

REELABORACIÓN

La tesis doctoral en su versión original responde al formato clásico de tesis, con lo cual es imprescindible proceder a una reelaboración para poder ser publicada en formato libro. Tres cuestiones fundamentales deberán guiar este trabajo: traducción, síntesis y adaptación de estilo.

Traducción

Se propone traducir el original catalán al inglés. La tesis debería publicarse en inglés, antes que en castellano u otra lengua mayoritaria y académicamente significativa, por diversas razones.

En primer lugar, porque el inglés es, sin lugar a dudas, la *lingua franca* de la investigación a nivel global. Ade-

más, en el campo de investigación concreto de la tesis, la gran mayoría de bibliografía y referencias son en inglés. También las principales instituciones académicas dedicadas de modo explícito o implícito al ámbito de investigación de la tesis trabajan con el inglés como lengua vehicular.

En segundo lugar, porque el inglés ha sido la lengua de trabajo fundamental en todo el proceso de investigación, incluyendo los períodos de estudio en Estados Unidos (University of Southern California, Los Angeles) y Suecia (Umeå Universitet, Umeå).

En tercer lugar, porque una parte muy significativa de la tesis ya ha sido traducida al inglés por una traductora estadounidense especializada en arquitectura. Una pequeña parte de esta traducción ya se publicó en la propia tesis por requerimientos normativos relacionados con la obtención de la Mención Internacional.

Finalmente, porque la voluntad del autor es que en la publicación de la tesis en formato libro llegue al máximo número de gente posible —especialmente a estudiantes y profesionales de arquitectura, urbanismo y paisaje. Es importante recordar que la intención del trabajo es básicamente pragmática, y busca, por encima de todo, generar una caja de herramientas para el futuro inmediato que permita ampliar los objetivos, las metodologías y los formatos del proyecto arquitectónico. El inglés nos parece claramente la opción más adecuada para conseguir este objetivo básico.

Síntesis

En su formato original, la tesis es excesivamente extensa. Consta de más de 200.000 palabras, sin contar con los anexos y traducciones, y ocupa más de 600 páginas. Es necesario un trabajo de síntesis que, sin perder lo esencial del trabajo de investigación, reduzca significativamente el tamaño del documento para adaptarlo a los criterios editoriales de la colección *arquía/temas*. La reducción del texto irá pareja a un aumento del tamaño de las imágenes, para hacer más atractiva la publicación y permitir una mejor comprensión de los mapas presentados.

Además de facilitar su publicación, el trabajo de síntesis será una oportunidad ideal para refinar algunos aspectos de redacción y sobre todo para destilar en menos palabras el conjunto de un trabajo fruto de muchos años. En definitiva se trata de reelaborar la tesis aprovechando la oportunidad brindada por Fundación Arquia para conseguir una versión más corta, más sintética, más clara y en definitiva, mejor.

Estilo

Más allá del trabajo de síntesis, hay una importante labor de adaptación estilística. La tesis original responde fielmente al formato clásico de tesis doctoral, por convicción del autor y por insistencia del director. Se trata de un texto académico, formal, que fundamenta la mayor parte de las aseveraciones en bibliografía o estudios previos, y que a menudo discurre de modo argumentativo asegurando que el lector pueda, en cualquier momento, comprobar las fuentes del autor y rebatir su posicionamiento—para hacerse una idea, la tesis original tiene más de 900 notas y la bibliografía citada supera las 400 referencias.

En definitiva, el trabajo original tiene un estilo altamente académico que si bien es adecuado para el formato tesis, no lo es para el formato libro. Los criterios de adaptación estilística pasan por reducir significativamente las referencias bibliográficas, dejando únicamente aquellas imprescindibles; limitar el uso de citas incluidas en el cuerpo del texto; evitar redundancias en el argumento; reducir cultismos; eliminar buena parte de las notas y referencias a fuentes cuando no sea estrictamente necesario; homogeneizar las notas de modo que no abran más frentes discursivos; y redactar de nuevo algunos fragmentos en un tono más accesible.

La reelaboración de la tesis original en los tres frentes descritos, permitirá adaptarla tanto al formato como a la línea editorial de la colección *arquía/temas* de la Fundación Arquia. Como última parte del presente documento, incluimos una propuesta de índice reducido y ejemplos de las tres partes de las que constará la versión en libro de la tesis, ya traducidos al inglés.

Notes: The book's three sections are roughly equivalent in length. This index provides more detailed information on section three for illustrative purposes.

The overall index and the titles of the sections are preliminary.

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I. CONCEPT: the operative potential of mapping

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Operative maps and diagrammatic practices

Positivity, expressivity and operativity

The map as a mediation system

A map of the map

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III. PRACTICE: mapping agency in architectural design

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Visions

Mark Hacker - Stan Allen, Scoring the City (1986)

Herzog & de Meuron, Diagonal Barcelona (1989)

Andrea Branzi, Agronica (1995)

Keller Easterling, Jerusalem (2002)

Joan Busquets, Ciutat Vella de Barcelona (2003)

OPSYS, Energy Dike (2009)

Constructions

Bernard Tschumi, La Villette (promenade cinématique) (1982)

Peter Eisenman, Long Beach University Art Museum (1986)

Daniel Libeskind, Jewish Museum Berlin (1988)

Steven Holl, Edge of a City: Dallas/Fort Worth (1990)

Enric Miralles, Osthafen (1992)

Michel Desvigne, Biesbochstad Rotterdam (2006)

Protocols

Toyo Ito, Shanghai (1993)

Stan Allen, Barcelona ZAL (1996)

Murado/Elvira, Calverton Racetrack (2000)

Mansilla/Viu, Catalunya Lineal (2003)

Chora, Carlsberg Urban Incubator (2007)

Mosbach/Rahm, Taichung Park (2011)

Instruments

OMA, Seoul Airport City (1995)

FOA, Downsview Park (2000)

James Corner Field Operations, Fresh Kills (2001)

SANAA, Ciudad del Flamenco (2003)

Ábalos+Sentkiewicz, Spina Tower (2008)

Ahylo, Hacienda (2010)

CONCLUSIONS

BIBLIOGRAPHY

SAMPLE 1

The concept of operative cartography is founded on the conviction that maps and mapping produce reality, rather than merely reproducing it.

The propositional capacity of cartography is especially rich in the field of architecture, understood in its broadest sense. The potential operative nature of cartography in the context of architectural design is quite clear: the specific constructions of reality inherent in maps not only open up new conceptions of the reality being mapped, they also present new possibilities for a real transformation of the milieu.

As such, the expression 'cartographic operativity in architectural design' refers to the production and use of maps to expand our conception of reality and promote its transformation through architecture, urban planning and landscape architecture.

Maps have routinely been used as documents that represent reality in a supposedly neutral and objective way. Maps do not just represent reality, however; they also construct it in a specific way. They activate a limited selection of parameters that point to a particular outlook on the world. This orientation of reality, characteristic of maps, opens up possibilities for transforming reality that can be brought into play by architecture.

Map and architectural design cross over in a complex and productive relationship: maps and mapping become tools that can have an enormous impact on architectural projects which, in turn, transform the milieu. In the context of architectural discipline, operative cartography implies the use of maps as a design mechanism.

Two maps

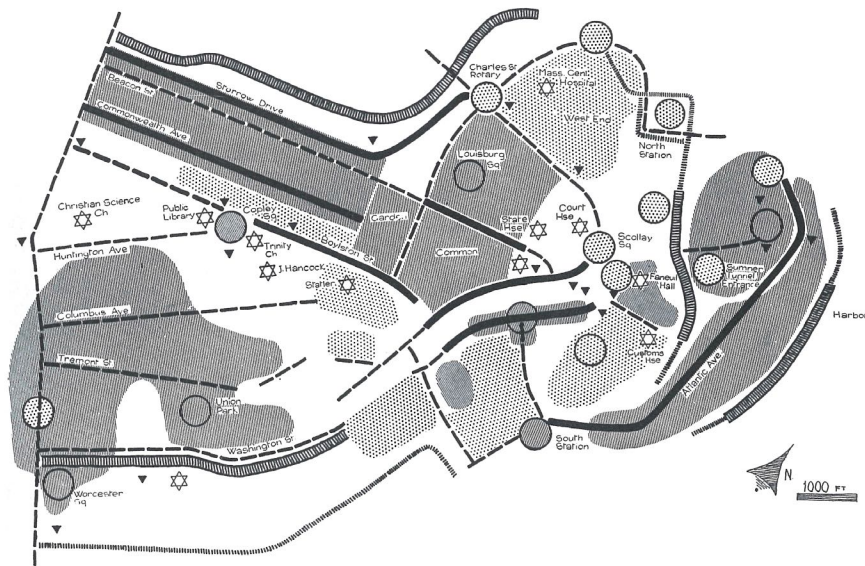


Fig. 1: “The visual form of Boston, as seen in the field” (Kevin Lynch, 1960 [1955])

Both of these images are maps. Despite their obvious differences, they share deep similarities. In fact, their similarities are much more meaningful than their differences. More importantly in the context of this book, the characteristics that both maps share serve to highlight the fundamental aspects of what we call *operative cartography*.

The first image is a cognitive map of Boston published by Kevin Lynch. The second is a psychogeographic map of Paris published by Guy Debord. In both cases, these maps have been a source of inspiration and influence in the world of architecture, urban planning, the social sciences, political activism and the arts. The reason behind the influence of these maps is rooted, on the one hand, in the fact that they offer a new vision of reality and, on the other hand, they help us imagine new ways of transforming the reality being mapped.

The map by Kevin Lynch is called “The visual form of Boston, as seen in the field” and it appears in the book *The Image of the City*, published in 1960—although the first version of the map dates back to July 17, 1955.¹ The book by Kevin Lynch is the result of an MIT research project called “The Perceptual Form of The City”, undertaken between 1954 and 1959 by



Fig. 2: “The Naked City” (Guy-Eugène Debord, 1957)

Lynch and György Kepes.² This research—a seminal study on mental maps and cognitive cartography—focuses on human perceptions of the urban landscape. It suggests that these perceptions should influence on how cities are designed. Taking the cities of Boston, Jersey City and Los Angeles as case studies, Lynch and Kepes conducted interviews with a large number of city residents. Then, they created a series of maps focused on understanding how these inhabitants perceive the city. Lynch’s maps codify a city’s imageability—i.e., how well the urban environment can be read, recognized, interpreted, experienced and mentally mapped.³ Lynch’s explicit goal is to understand how people perceive the urban environment in order to rethink both the criteria for city planning and the tools that are used. The map “The visual form of Boston, as seen in the field” records paths, edges, districts, nodes and landmarks, which are the main physical and perceptual elements inhabitants rely on to make a mental image of the city. This map is the conclusion of many partial perceptual maps, and it works in tandem with a complementary map called “Problems of the Boston image”, which records discontinuities, ambiguities, weak boundaries and points of confusion that impede urban legibility.

The map by Guy Debord is called “The Naked City: Illustration de l’hypothèse des plaques tournantes en psychogéographie” and it was printed in Denmark in 1957 by Permild & Rosengreen. “The Naked City” appeared just after Debord’s first psychogeographic map, known as “Discours sur les passions de l’amour”, was published by the International Movement for an Imaginist Bauhaus (MIBI)⁴ and also printed by Permild & Rosengreen. Subsequently, “The Naked City” was included in the book *Pour la forme* by Asger Jorn, published by the Situationist International in 1958. The map takes its title from a 1948 film by Jules Dassin and the film borrowed it, in turn, from a book published in 1945 by the photographer Arthur ‘Weegee’ Fellig, which shows New York through portraits of its intense street life. Debord’s map is the result of a *dérive*, an experimental way of experiencing the city introduced by the Situationists. According to Debord, the idea of a *dérive* is linked inextricably to two questions: first, an understanding of the psychogeographic nature of the city; and, second, the affirmation of playful-constructive behavior.⁵ “The Naked City” is a map that records the ‘psychogeographic relief’ of the center of Paris, indicating the different units of ambiance, the psychogeographic slopes that connect them, and the unique spots, or *plaques tournantes*, that link the different units of ambiance. To make it, Debord used the method of *détournement*, cutting up maps from the Taride Paris Guide and repositioning the pieces based on a direct experience of the city gathered during multiple *dérives*.

As we stated at the outset, there are profound similarities between the maps by Lynch and Debord. Both are from the same period, their object is the city, their focus is on perception. Both Lynch and Debord use the map format because it is the type of document that can best record subjective perceptions and transform them into knowledge that can be transmitted intersubjectively. Both maps document urban morphology as it relates to city-dwellers’ perceptions. Both maps dehomogenize urban space, revealing areas of intensity, vectors of movement and referential nodes associated with the city’s use. Both maps record perceived connections and areas of significance, but they also denote barriers, *cul-de-sacs* and limit conditions. Finally, they both reveal the impossibility of determining an absolute and definitive representation of the urban landscape. In addition to mapping a positive understanding of the city, both Lynch and Debord also map doubt, which becomes instrumental: in both cases, the maps treat certainties and uncertainties with the same level of intensity. Ultimately, Lynch and Debord’s maps are documents that broaden and enrich our understanding of reality, while avoiding one of the pitfalls of conventional cartography: naturalizing the version of reality that is transmitted by the map.

Both Lynch and Debord have no choice but to develop their own maps because there is

no other suitable mechanism for recording the aspects of urban reality that interest them: the functionalists’ morphological analyses do not satisfy Lynch’s need to understand urban form from a perceptual standpoint, for the purpose of reforming the objectives and methods of post-war urban design;⁶ nor do Lettrists’ metagraphs satisfy Debord’s desire to develop techniques that transcend strictly evocative urban perspectives to help construct the operative tools of Situationist unitary urbanism.⁷

It follows that, as innovative cartographic constructions, both maps must generate new concepts for describing urban reality. Both Lynch and Debord develop new terminology, which they incorporate into the legends, titles and texts that accompany their maps. According to Lynch, the mental images we create of cities are made up mainly of paths, edges, districts, nodes and landmarks. These mental categories promote urban legibility, thereby aiding in the recognition of the city’s spaces and its full appropriation as a living environment. According to Debord, on a perceptual level, the city is made up of different units of ambiance that relate to one another through a psychogeographic topography consisting of psychogeographic slopes and atmospheric borders.⁸ Certain of the units of ambiance, or part of them, serve as turning plates [*plaques tournantes*], which link to different units of ambiance and become unique spots in the urban experiential fabric.

Importantly, both Lynch’s and Debord’s maps reveal an urban reality based on the direct experience of the city through performative logics. The mental image of a city is defined much more by the different ways it can be used as a setting for life, rather than through conventional cartographic abstraction. Conventional maps display urban relationships of contiguity as defined abstractly by metric distance in plan. Lynch’s cognitive map and Debord’s psychogeographic map, however, show these urban relationships as defined in terms of experience. Both maps move past the representation of the city in strictly geographic terms to propose urban representations that highlight the importance of holistic perception as a method for approaching urban reality.

But, as we commented earlier, beyond the explicit similarities in the maps by Lynch and Debord that we have already pointed out, what is truly meaningful in the context of this text is the fact that both maps introduce the fundamental aspects of what we have conceptualized in this book as operative cartography.

- » The documents by Lynch and Debord are, first, *maps* and, second, *operative maps*. They are maps in that they are graphic systems that are generated in contact with reality; they are documents that record specific elements, concepts, conditions, processes or events, while providing a spatial understanding thereof. They are operative maps

because they expand the field of the real and promote its transformation.

- » The operativity of Lynch and Debord's maps is present both in the mapping *process* and in the *uses* of the finished maps. On the one hand, the production of both maps implies a new experience of the existing city, and the maps end up constructing this transformative outlook on the urban environment in a concrete way. The maps are, simultaneously, the starting point for and the result of a new perspective on the urban reality—the conceptual framework for and the recording of an alternative vision of an existing reality. On the other hand, the resulting documents have an enormous influence—both directly and indirectly—on any number of transformation processes affecting the mapped reality.
- » Lynch and Debord's maps acknowledge and embrace the condition of all cartography as a cultural construct. Neither map claims absolute objectivity, because they both understand that *maps are not simply representations, but rather systems of propositions* concerning reality. They do not represent reality in a neutral way; they construct it. The urban reality of Boston and Paris cannot be represented neutrally and objectively. Every map is a construction of reality based on specific values and particular interests, which may be explicit or only implicit. The maps by Lynch and Debord do not hide this fact; rather, a large part of their power is derived precisely from revealing the interests that fuel the system of propositions that constitutes each map. Both maps are generative and not merely descriptive: they construct reality in a specific way.
- » Lynch and Debord's maps are *both hermeneutic and projective* at the same time: they describe one version of the world while also inventing new ones. On the one hand they interpret reality by recording a series of specific aspects. On the other hand they posit themselves as anticipatory documents, which define horizons for transforming reality and invite action. Lynch's cognitive maps are meant to improve American city planning; Debord's psychogeographic maps are intended to promote reclaiming the urban environment as a space for life. Based on a specific description of certain features of the city, both maps reveal hidden aspects of the urban reality and display potentials that were present virtually.
- » Lynch and Debord's maps are *mediation systems*. They are documents that protocolize reality from a certain point of view, establishing a system that mediates between designer and design. Both maps become intermediaries with the capacity not only to read specific aspects of reality, but to inform design decisions as well—in the context of an architectural project in the case of Lynch's map, and a political project in

the case of Debord's. In this sense, both maps offer alternatives to the idea of design understood as composition, creating an intersubjective filter that allows for establishing links between the various agents involved, while setting up a system to mediate among the different levels of objective reality and subjective desires.

- » Finally, the maps by Lynch and Debord are *agents for transforming reality*, which promote and foster change. One of the fundamental issues evidenced by these two maps is the impossibility of understanding design in terms of analysis (passive and objective) and proposal (active and subjective). Both maps are interpretative and representative documents, while they are also generative and projective at the same time. Their active quality is not limited to constructing new images of what already exists. Beyond expanding our understanding of reality, both maps promote its transformation—new visions of reality call for new transformations of reality. As demonstrated by the influence that “The visual form of Boston, as seen in the field” and “The Naked City” have had and still have, maps are essential operative agents in the construction of the contemporary milieu.

Ultimately, the two maps by Lynch and Debord illustrate the three fundamental characteristics of cartographic operativity, the central concept of this book, which we can summarize as follows:

- » The map as a cultural construct, as opposed to a neutral representation of reality.
- » The map as a mechanism for revealing and updating existing potentials.
- » The map as a technique for expanding reality and transforming the human living environment.

Notes

- 1 Sketch Map of Boston 2003: n.p.
- 2 The Perceptual Form of the City 2009:n.p.
- 3 Lynch 1960: 9 ss.
- 4 The Naked City 2012:n.p.
- 5 See “Théorie de la Dérive” originally published in 1956, Debord 2006:251-257.
- 6 “Giving visual form to the city is a special kind of design problem, and a rather new one at that. In the course of examining this new problem [...] we might begin to [...] offer some first principles of city design.” Lynch 1960:v.
- 7 For more on Lettrist metagraphs from the 1950s, see examples by Maurice Lamaitre, Gil J. Wolman, Guy Debord, or Gilles Ivain. For more on unitary urbanism, see “Rapport sur la construction des situations et sur les conditions de l'organisation et de l'action de la tendance situationniste internationale,” originally published in 1957, Debord 2006:308-328.
- 8 See “Quatrième expérience du M.I.B.I. (plans psychogéographiques de Guy Debord)” originally published in 1957, Debord 2006:228-292.

SAMPLE 2

This section of the book presents a collection of maps as the support for analyzing certain poles that display a particular cartographic intensity. The series of maps is not intended to establish a conventional taxonomy based on a systematic classification of self-contained elements; rather, it is the beginning of an eidetic atlas – a collection of images intended to generate a critical mass sufficient enough to allow for recognizing certain continuities and underlying tendencies in the history of mapping. It is intended, above all, to broaden the scope of our cartographic imagery and to promote cartoliteracy: a certain culture of maps that is not based on historical categories, thematic classifications or chronological affiliations, but rather on the maps in themselves, as the rich and open-ended documents that they are.

The text that follows is an illustration of one of the concepts used to structure the eidetic atlas: narrative.

Narrative: Map as Text

The concept of narrative reveals the nature of maps as text. Maps are never a neutral representation of reality. They are imbued with values, whether explicitly or implicitly. These values are articulated through mapping operations and the paramap. Mapping operations are the specific logics used to produce the map; the paramap refers to all the elements that accompany the map itself and is made up of the perimap and the epimap.⁴⁶⁵ The former includes all the elements around the map that serve to complement it: title, photographs, illustrations, legends, symbols, diagrams, texts, credits, frames, decorative elements, etc. The latter includes all those elements which, although they are not part of the map, refer to it or relate to it: articles and commentary, reviews, interviews, advertisements, publicity, documents referencing how the map was produced, etc.

A map can be compared to a text in many senses. It can be written and read, it generates discourse, defines authorial positions, and creates a specific culture of cartographic literacy – what specialized literature has called “cartoliteracy”. The rhetorical and narrative capacity of maps has been and still is used continuously. Three levels of the narrative capacity can be highlighted as especially significant: first off, the explicit and supposedly objective narration of an event – “this happened here / this can happen here” (making a record); second, the implicit narration regarding the map’s neutral and truthful relationship to what it depicts: “I show only what is” (constructing certainties); and third, the narrative of an origin myth – “we are who we are because this happened here” (telling stories).

Making a Record

Maps often tell the story of an event, with the –sometimes genuine–pretension of objectivity: these maps collect information about a situation and document it by making a record. The narrative may be the description of a past event, or the projection of a future one; in any case, the factor of time is incorporated into the spatial framework.

The above map by Doctor John Snow records cases of cholera in relation to their specific location. Through the precise graphic representation of the place where the phenomenon occurred, the map becomes more than just an attestation; it also provides insight,

since it allows for drawing conclusions regarding the origins of the epidemic. Regardless of whether or not we know what the map is recording, the reading of Snow's map is very clear, revealing density distributions and clusters. If we add specific information to the map – the location of water pumps – the landscape of dots immediately becomes a text that is starting in its clarity. At the time of the map's production, this "text" led to the deduction that the cholera outbreak in Soho in 1854 was directly linked to a water pump located on Broad Street, and hence that cholera was transmitted by contaminated water. Snow's map combines the phenomenon under study (cholera), the physical framework (Soho, London) and the time factor (August–September 1854) into a single plane. Based on a straightforward gesture – "this happened here" – it constructs a hermeneutical tool with the capacity to provide a convincing explanation for the events that took place.



Fig. 3a: Map showing cases of cholera in the London epidemics of 1854, clustered around the locations of water pumps (John Snow, 1854).

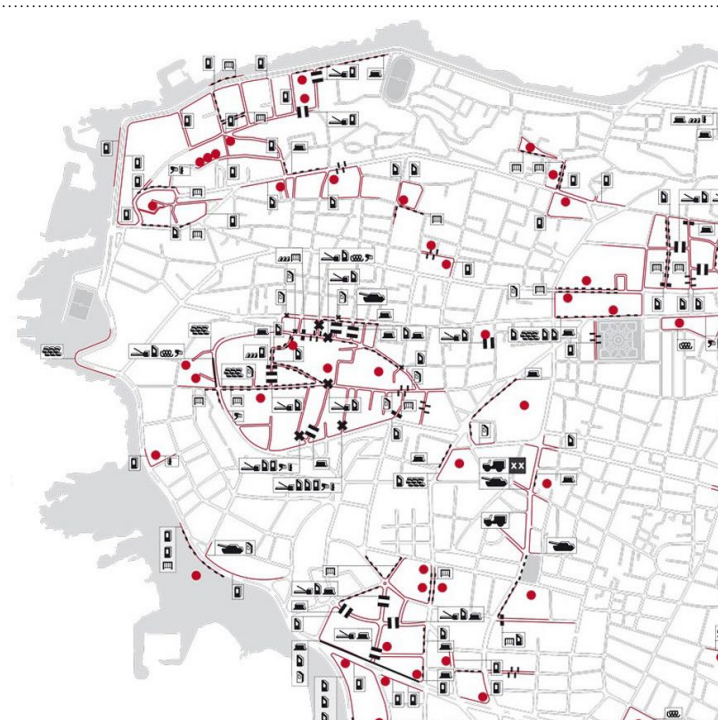


Fig. 3b: Beirut Mapping Security (Mona Fawaz, Ahmad Gharibeh, Mona Harb, 2010).

In 2010, Mona Fawaz, Ahmad Gharibeh and Mona Harb created a series of maps of Beirut that reveal the state of exception to which the city is (too often) subjected, on the grounds of security. The maps by Fawaz et al. are a record of surveillance cameras, the locations of permanent checkpoints, blocked off roads and squares, armed military troops, private security forces, and other elements of an evolving yet continuous urban siege. Because these elements of urban control change location often, the maps were updated over

the course of a few months, in order to ensure that the information they contained was accurate. The map in the image above corresponds to the landscape of visible elements of the security deployment between February and July of 2009. This series of maps reveals the reactions related to political control over the city as they respond to specific events (episodes of inter-religious tension, protection of an emerging political figure, opening of a new luxury boutique). Carried out from a critical perspective, these maps make a record of an exceptional situation and seek to incite a public debate on the normalization of security as an element of urban policy and the impact of narratives of terror and threat on everyday life in Beirut.

Constructing Certainties

Many maps establish an underlying narrative that draws on the supposed neutral and truthful nature of cartography to posit what the map represents as absolute truth. Mapping, then, becomes a mechanism for constructing certainties, which appear as self-evident due to the rhetorical and communicative power of maps.

Colomb's world map shows the extent of the British empire in 1886, at the moment of its maximum territorial expansion.

The decision to represent all of the territories related to the Empire in one way or another using a single color helps to reinforce the message of colonial power, glossing over a reality that is much more troubled than the one presented by the map: certain of the territories belong to the Empire through dynastic alliance or conquest, some are simply associates, and others are under temporary occupation. What the map shows as homogeneous is actually made up of a large number of administrative and control systems: this includes nations that were members of the Union (Wales), dependencies (Jersey), colonies (India), protected states (Nepal), protectorates (Botswana), dominions (Canada), or mandates (Palestine). The map silences the history of diplomacy, political ingenuity, military repression and conquest that resulted in the territorial entity being mapped as an obvious truth at the end of the Victorian age. The spectacular iconographic deployment in the map's frame unfurls a clear narration that exalts the Empire's virtues and exhibits representatives of all its peoples in situations of reverent submission to the figure of Britannia crowned like a new Athena Parthenos, seated atop the world, which is held up by the powerful Atlas.



Fig. 4a: Imperial Federation, map of the world showing the extent of the British Empire in 1886 (John Colomb, 1886).

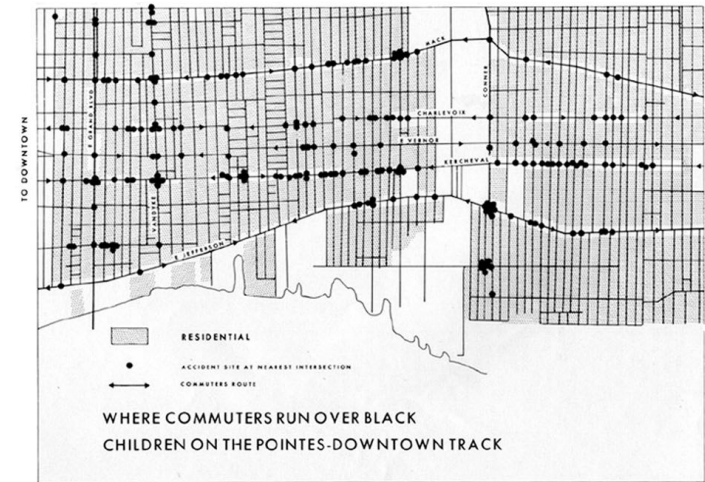


Fig. 4b: Where Commuters Run Over Black Children on the Pointes-Downtown Track (William Bunge, 1968).

Bunge's map of Detroit also develops a (vaguely) submerged narrative, although in this case it does so from a position that subverts the status quo and its dominant narratives. The geographer William Bunge was one of the first "maptivists", and between 1968 and 1982 he created a significant series of counter-maps that consciously harnessed the rhetorical power of maps to uncover urban realities that were typically silenced by the dominant classes

and their interests. The map known as "Runover Map" records the points where children were hit by cars in a poor neighborhood in Detroit in 1968. The map clearly reveals that most of the accidents involving lower-class black children who lived in the neighborhood occurred on the routes used by suburban commuters, mainly middle-class white men, who worked downtown. The title, in this case, is as meaningful as the graphic representation and provides a clear frame for the socio-political discourse that is implicit in the map.

Telling Stories

Maps are also a way of telling stories, in every sense of the word. Mapping is often used as the basis for mythological foundational narratives. The discourse implicit in some maps claims that “we are who we are because this happened here”. With the help of maps, physical space becomes the support for foundational narratives, and an interesting feedback is often generated

between the perception of a spatial reality, the mythological construction of a story, and the fusion between that physical space and the mythological narrative that occurs through the act of place naming. *Nomen est numen*. A place name refers to a mythological narrative, which is in turn confirmed by a physical space: in Majorca, the Milky Way is called King James’ path, in reference to the dust kicked up by the Catalan king’s horses as he freed the island from the Saracen invaders.⁴⁶⁶ A look up at the sky on a clear night is enough to demonstrate the reality of that story.

In the images above, the Muranji escarpment is represented by two different maps. The first is an Aboriginal Australian Dreamtime Map, drawn according to the account given by Big Peter Tjupurrula in 1974. The second is a conventional Western map representing the same elements. Dreamtime, or *alcheringa*, is an infinite spiritual cycle, beyond the scope of common time and space, where past and present blend together. For the Aboriginal people, Dreamtime is realer than reality, and the things that happen and have happened mythologically during Dreamtime are the foundation for the values, symbols and laws of Aboriginal society, and they determine how the landscape is read. The map of Tjupurrula combines physical space (also recognized in the Western map) and mythological space (which the Western map cannot access) in the same plane of consistency. Although it maintains a similar

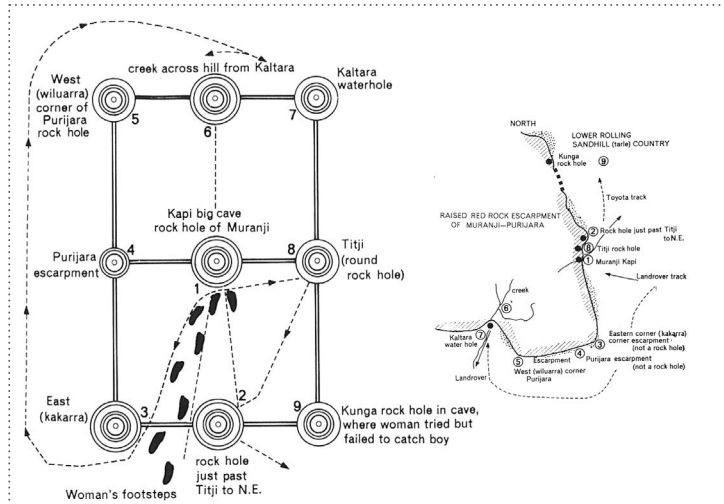


Fig. 5a: Muranji Escarpment Dreamtime Map (Big Peter Tjupurrula 1974, interpreted by David Lewis 1978)

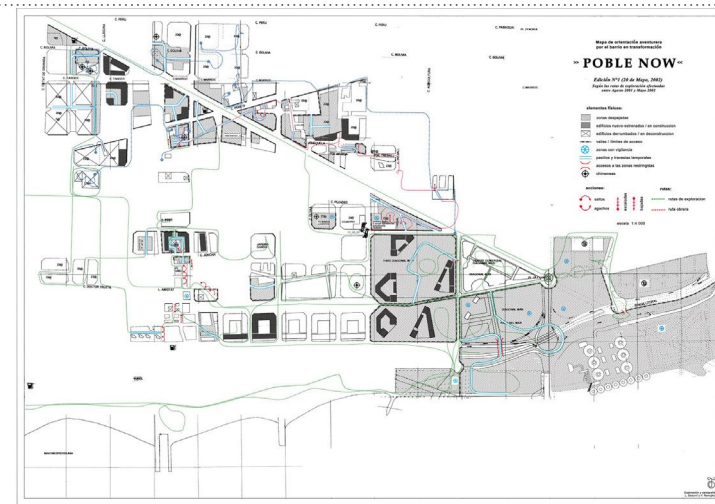


Fig. 5b: Poble Now (Rotor [Vahida Ramujkic, Laia Sadurni], 2002).

orientation according to the cardinal points, the Aboriginal map adds magical-performative logics such as the central position occupied by the main element in the dream, or the chronological order of the mythological narration that progresses in a clockwise direction (i.e., following the sun). This gives the map a very significant abstract quality, since it does not work according

to the logic of mimetic representation that is characteristic of Western societies: the Aboriginal map is a tool for interpreting the geographic reality inextricably connected to a world view that is articulated by myths. Familiarity with those myths is a precondition for interpreting and using the map. The myths and stories, and the songs that contain them, are used by the Aboriginal people as a framework for interpreting their physical and spiritual reality. Significantly, they are also used as a prospective framework for action and intervention: as a guideline for regulating behavior and, like in the case of the map by Tjupurrula, as a system for spatial orientation in the wide open plains of the Australian interior.

The Orientation Map for Adventure in a Neighborhood under Transformation - Poble Now posits a changing urban reality as an unspoiled territory for exploration. The map – the first in an interesting series on Barcelona’s Poblenou neighborhood, created by RoToR – records both physical conditions (e.g., vacant lots) and performative conditions (e.g., jumping over fences) with a twofold purpose. In the first place, it is intended as a critique of the kind of urban transformation promoted for the 2004 Forum of Cultures in Barcelona and the gentrification politics and city branding that accompanied it. Second, and more fundamentally, it aims to rediscover the city as a field for research, updating the Situationist program presented in “The Principle of Disorientation” by Constant Nieuwenhuys.⁴⁶⁷ In the map,

the routes for exploring were determined by intuition and direct action: “[W]e would embark on each adventure without knowing where we were going or what we were looking for. In the end we always found ourselves having extraordinary experiences and making great discoveries.”⁴⁶⁸ Poble Now is the map of a psychogeographic and activist *dérive*, which presents a specific moment (August 2001–May 2002) during a large-scale process of transformation. It not only shows that the city is always immersed in a constant state of change, it also advocates for direct intervention and the appropriation of urban space: “The RoToR method [of direct and un-mediated action] is based on personal experience and processing of raw materials in order to transform oneself and one’s surroundings.”⁴⁶⁹

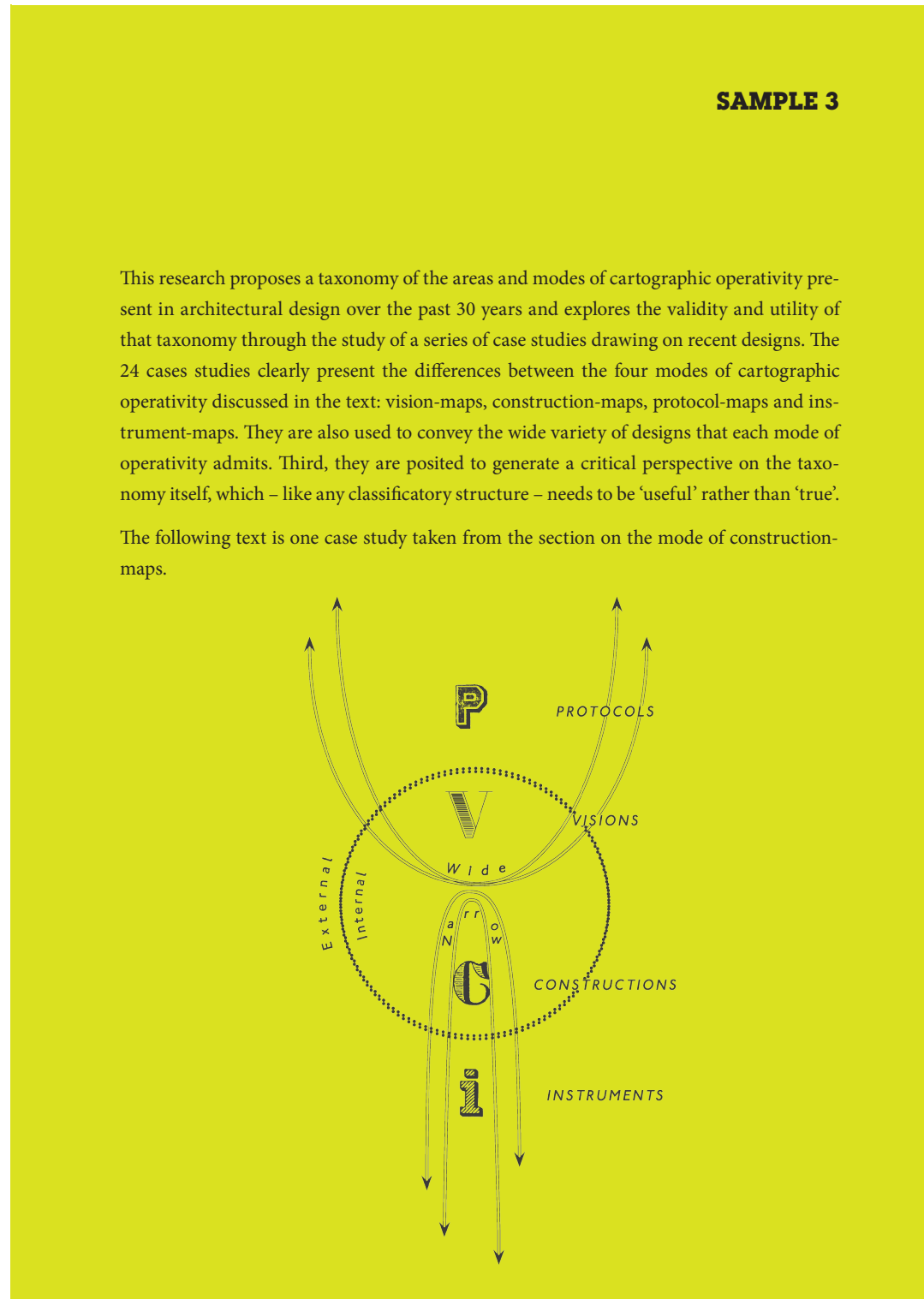
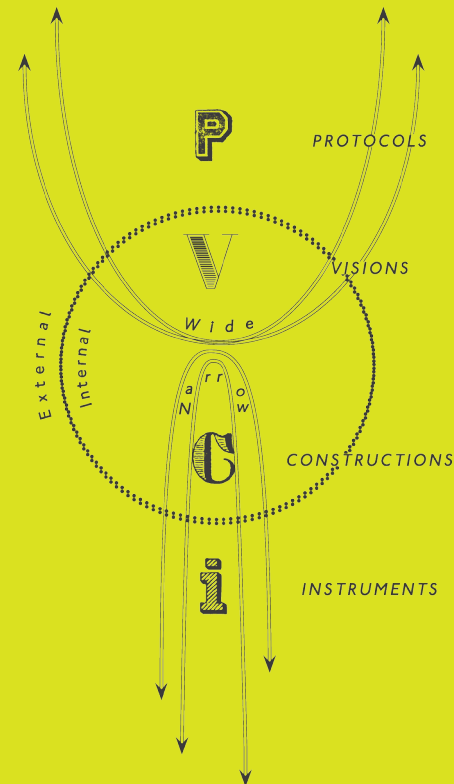
Notes

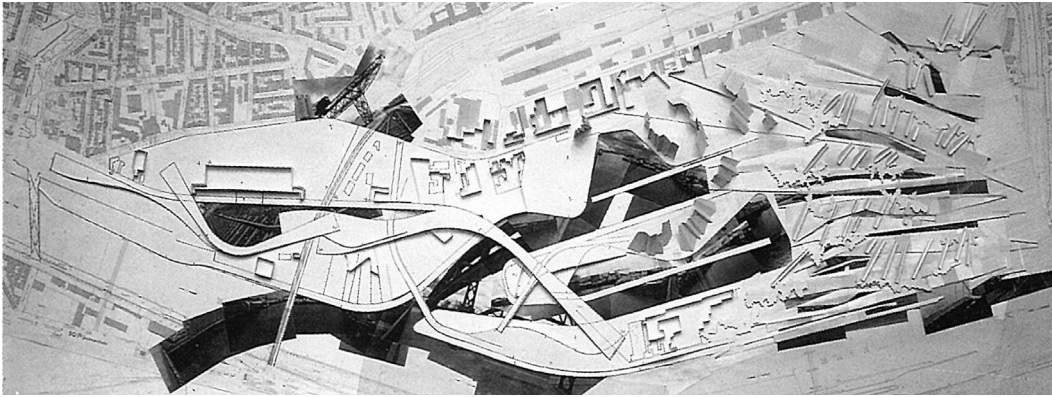
- 465 Wood and Fels 2008:192.
- 466 Racó 1997:110.
- 467 Constant 1996.
- 468 Rotor 2009: n.p.
- 469 Rotor 2009: n.p.

SAMPLE 3

This research proposes a taxonomy of the areas and modes of cartographic operativity present in architectural design over the past 30 years and explores the validity and utility of that taxonomy through the study of a series of case studies drawing on recent designs. The 24 cases studies clearly present the differences between the four modes of cartographic operativity discussed in the text: vision-maps, construction-maps, protocol-maps and instrument-maps. They are also used to convey the wide variety of designs that each mode of operativity admits. Third, they are posited to generate a critical perspective on the taxonomy itself, which – like any classificatory structure – needs to be ‘useful’ rather than ‘true’.

The following text is one case study taken from the section on the mode of construction-maps.



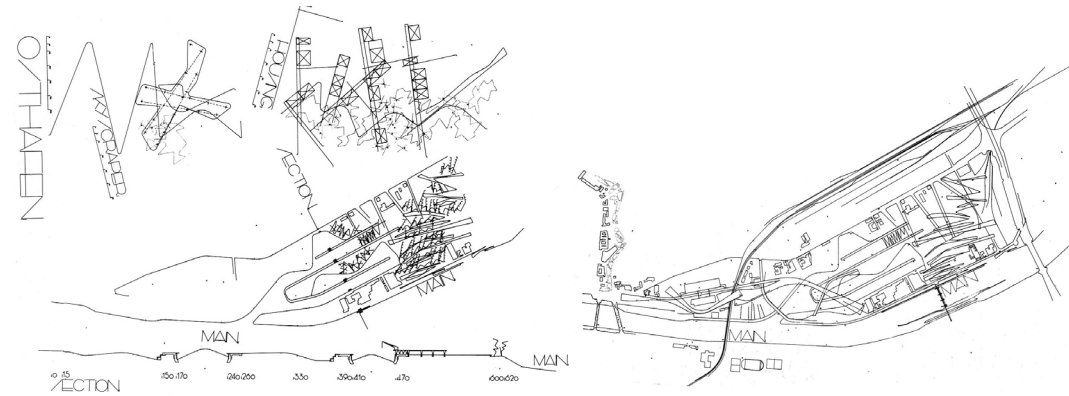
Enric Miralles, Osthafen (1992)

▣ Fig. 6: Enric Miralles. Plans and sections; map-model Osthafen, 1992.

The above documents show two different phases in the process of designing a new residential area in Frankfurt, located on the right bank of the Main River. The two different planimetric representations in the first image correspond to different stages in the construction of the map-model that appears underneath. The three-dimensional map acts as a reverse palimpsest, representing different stages in time of the current site. The various stages are constructed through the gesture of “peeling away” layers of the map (layers of time and material) and redistributing them across the site in order to reshape it to host a new residential neighborhood.

Enric Miralles was notable for the continuous use of maps throughout his career. For Miralles, maps were a faithful ally in the generation of an inquisitive and projective outlook on the sites he worked with, to the point that most of his projects seem to emerge directly from an investigation of site. Miralles employed cartographic operativity on various levels: we could use examples of his projects to illustrate any of the modes of operative cartography in architectural design that appear in this book. Projects like his proposal for the Borghetto Flaminio, the enlargement of the San Michele cemetery, or the boat terminal in the port of Thessaloniki are based on vision-maps. The Niederrad Civic Center, the entrance to the Takaoka Station, the Salerno courthouse, or the campus in Vigo highlight a more determinate relationship between map and project, where the instrument-map informs the design in a more direct and instrumental way. Furthermore, projects like Bremerhaven use protocol-maps to invoke the map’s potential to protocolize reality following the demands of the brief – specifically, the matter of implementing the design using variations and multiple combinations of five independent proposals.

However, the mode of cartographic operativity used most often by Miralles, and with the most outstanding results, is that of construction-maps. From the Igualada cemetery to the



Scottish Parliament, including the Olympic archery field, the International Garden Fair in Dresden, the Diagonal Mar Park in Barcelona, or the Mareas Museum in Lanzarote, we find that a large number of Enric Miralles’s projects include operations where the transformation and manipulation of maps lie at the root of architectural design; the designs would be inconceivable without the mapping efforts that accompany the design process: “Mapping [is] a tool for asserting thought’s power over the physical description of a place.”⁷⁴⁰

Each construction-map inscribes thought onto the map. It is no longer a simple physical, supposedly neutral and objective description of reality; rather, it becomes a “subjective map” (or, more precisely, an intersubjective map), like the *Leo Belgicus* that Visscher uncovered on his map of the 17 provinces of the Netherlands around 1609.⁷⁴¹ Here, we use the competition for the repurposing of the Osthafen port in Frankfurt as an example for a more in-depth study, in order to investigate how “a territory is identified with a conceptualization”, through the use of a map.⁷⁴²

Faced with the need of repurposing an obsolete industrial port to reintegrate it into the city of Frankfurt, the first question Miralles asks has to do with time: places are defined by

physical conditions, by cultural perceptions and, because they are always subject to change, by time sequences. Places are also the history of the changes that have taken place there, i.e., all of the different places that a single place has been over time: “The sense of time is a very important element in the project: which time period should our proposal be inserted into? We’re looking for the best moment in time to recommence designing on the site.”⁷⁴³ Furthermore, sites are also the history of the ideas that have been projected onto them, as can be seen in the story Werner Heisenberg tells about Neils Bohr’s comments while the two scientists were visiting Kronborg castle in 1924.

Isn’t it strange how this castle changes as soon as one imagines that Hamlet lived here? As scientists we believe that a castle consists only of stones and admire the way the architect put them together. The stones, the green roof with its patina, the wood carvings in the church, constitute the whole castle. None of this should be changed by the fact that Hamlet lived here, and yet it is changed completely.⁷⁴⁴



□ Fig. 7 Leo Belgicus.(Claes J. Visscher, 1609).

Fully embracing the irreducibility of the site to its geographic and physical characteristics and its location, along with its rich time-related dimension, the proposal for Osthafen begins with a series of maps that reproduce some of the port’s different historical configurations. Yet Miralles is interested in creating a complex relationship with that history. He does not aim to erase the richness of that reality by proposing a new and independent one. Nor is he willing to accept a single version of reality, a fixed image of a specific moment in time. As a result, the initial historical maps are insufficient when it comes to accessing the historical density of the place, and Miralles reaches back in time to the moment when the marshlands were first transformed into a port: “I tried to go back to the period when the marshlands were drained and the dykes were built for the wharfs and the dams, to start over from there in order to build something other than the reality that actually came to be; in other words, a residential area instead of a port and an industrial zone.”⁷⁴⁵ This is where the series of construction-maps shown above come into play, to reconstruct a (possible) history of the place. The process of creating the maps – looking at old documents, tracing

topographic contours, or following the Main River’s previous courses – leads to an intimate understanding of how the site currently occupied by Osthafen functions, so that a different future can be envisioned: a residential area as opposed to an industrial port. The mapping process involves individualizing certain characteristics of the site that predate its transformation into a port, such as the old riverbanks and the fords and crossings. Later, based on this knowledge of the site’s own tendencies, acquired through the constant drawing and re-drawing of the same place at different moments in time, a hypothesis is reached to approximate the appearance and configuration of the terrain during the drainage and drying stage.⁷⁴⁶ The maps presented here represent that ground, both imagined and rediscovered, on top of which the buildings for the new residential area are proposed. The design for Osthafen focuses mainly on the construction of the site; in fact, the only aspects studied in detail are the topography of the terrain, the access points and the communications infrastructures: “The project is built with materials taken from the site itself: this redefinition of the terrain forces us to reconsider the system of access points, the location of services and the proposal for the new buildings.”⁷⁴⁷ Building the project using material that originates on the site makes sense both in material and conceptual terms. The ground is reshaped into a new topography that enriches the riverbank condition and the relationship with the water. The project also conceptually recovers and reinterprets the site’s conditions and propensities, and then derives the specific proposals for the buildings, open spaces and circulations from that expanded site, constructed through the use of maps.

In an article he wrote about the firm West 8, Enric Miralles reflects on the Dutch landscape architects, drawing a parallel with their understanding of architecture.

The argument is difficult, but it can be easily summarized. While their work is based on a critical understanding of reality, the response provided by the designs shies away from negativity and settles in a series of positive, nearly optimistic affirmations.⁷⁴⁸

In the same way, Enric Miralles’s maps are a way of acquiring a critical understanding of reality. Understanding the reality that is subject to our intervention is necessary to achieve a capacity for action and professional credibility as designers. Establishing a critical stance implies a refusal to settle on one particular state of reality as it is given, and it involves taking up an authorial position with respect to that shift. Without a critical perspective, there can be no design that is worthy of the name. All too often, however, critical awareness feeds into a negative perspective that stands in the way of design decisions. In Miralles’s work, critical understanding never gives off negativity; it is always propulsive and anticipatory –

in the service of a continuing transformation of the milieu through architecture.

Enric Miralles's maps have such a marked presence in his work because they convey a particular understanding of the relationship between architecture and milieu. We live in a reality in transit, a world where territorial reference points that were understood as solid and immutable until very recently have been revealed as fragile and unstable, both due to the transforming action of man and the understanding that, even in geological terms, the only constant is change. Only a restricted field of vision (both in space and in time) has allowed us to infer the necessary stability to understand the milieu as a series of fixed references and places as stable coordinates that provide a framework for our actions. Based on our ability to transform the milieu, we have taken on a new awareness of our relationship with it. We find that it is no longer an absolute frame of reference or system of coordinates. The contemporary milieu is formed in a dynamic relationship of exchange in all directions, and in a feedback between culture and nature which, until recently, we could not even have imagined.



□ Fig. 8: Peeling layers on the Osthafen model, 1992.

The logic of the Osthafen map-model is quite clear; it is produced by adding and subtracting layers of cartographic information that correspond to different moments in time: the natural state of the marshlands, the medieval dykes and drainage canals, or the concrete wharves of the industrial port. The physical gesture of swing back layers of information to reveal new ones, which are used to literally construct the map, provides valuable insight on how Miralles understood the role that maps play in architectural design. In his map-model, the double role of the map (hermeneutic and projective) appears collapsed; it is impossible to distinguish its interpretive and propositional roles. Each decision to “peel” back a layer not only implies the discovery of a particular aspect of the reality being mapped, it also transforms the reality that is being interpreted. Likewise, it reveals how Miralles understands the relationship between the world and architecture. The map of Osthafen shows a total break-down between the classical categories of object and milieu; implicitly positing the inseparability of architecture and world.

The understanding of milieu promoted by Enric Miralles' maps and site plans could not be further from the essentialist conception that supports the genius loci, according to which architecture reveals or manifests certain intrinsic conditions of a place. Nor do they support the invention of an ad hoc place to provide a stable frame of reference for architectural design, where architecture is understood as a corollary, a logical conclusion or a near natural outgrowth from certain conditions of the milieu. Enric Miralles's architecture is produced by accepting the magmatic and fluctuating nature of the milieu, intensifying its relationships to architectural design through the use of maps, without attempting to resolve those relationships into a stable framework. Enric Miralles's architecture doesn't lose its meaning when taken out of context, but it cannot be understood without establishing relationships with a specific place. Neither contextualist nor abstract, Miralles' designs are based on a constant transformation of the milieu's conditions so that architecture itself is “naturalized” and becomes the milieu, a milieu that, in turn, asks to be transformed, and so on, without a possible resolution. In this way, site is not understood as a predetermined frame of reference into which architecture is inserted, based on stable relationships. Nor does architecture impose its own conditions onto the site, retroactively creating the necessary conditions for it to become a frame of reference. Enric Miralles's construction-maps reveal a multiple reality that is both found and designed, both geological and cultural, where discerning the limits between world and architecture is as impossible as it is pointless.⁷⁴⁹

Notes

740 Miralles 2009:53.

741 Refer to Miralles 2009, Heyden 2006.

742 Miralles 2009:53.

743 Miralles 1996:152.

744 Heisenberg 1971:51.

745 Miralles 1996:152.

746 We use the term “propensity” according to Jullien 1995.

747 Miralles 1996:152.

748 Miralles 2009:53.

749 Refer to Paez 2004.